

# Monthly all-cause and cardiovascular mortality as an indicator of the process of healthcare in rural settlements in various districts of Tatarstan Republic

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## Abstract

© 2018 Vserossiiskoe Obshchestvo Kardiologov. All rights reserved. Aim. To reveal the specifics of monthly dynamics of the all-cause and cardiovascular mortality, depending on gender and on the administrative district settlement (ADS). Material and methods. The lethal cases assessed, by the state registries, in three ADS, different by social and economical levels, abilities of medical institutions and life style of the rural inhabitants in the years 2000-2002 and 2009-2011. The methods that were applied: statistical, sociological, analytic, comparative. Results. Within a 10-year period, mean annual mortality from all causes in ADS1 decreased 21,0%, in ADS2 increased 0,2%, in ADS3 increased 5,4%. It is important to note the statistical significance ( $p<0,05$ ) of the differences in mean annual mortality from all causes in men and women in ADS2 during the first, and in ADS3 during both periods of the study. With the similarity of monthly all-cause mortality in rural settlements, there is differentiation by sex and ADS. Excessive mortality increased the mortality to 4,0 promille. Economical disadvantage from premature mortality was minimal in ADS1 at the background of comparably maximal mean person gross territory product and most healthy rural inhabitants. Conclusion. Significant differences in mortality of rural inhabitants are proved by gender and administrative district type of settlements; economical disadvantages are associated with social and economic level of the territory development, life style of the rural inhabitants, and in dynamics there is similarity and difference in monthly parameters of rural inhabitants mortality makes it plausible to regard them as in indicator of the healthcare processes in rural settlements.

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## Keywords

Economical disadvantage, Excessive mortality, Healthcare processes, Indicator, Monthly mortality, Rural inhabitants

## References

- [1] Presidential decree of 07.05.2012 № 598 "On the improvement of the state policy in the field of public health". (In Russ.)
- [2] State development program of public health up to 2020. Russian Federation Government Order № 2511-p of 24.12.2012. (In Russ.)
- [3] Maltsev SV, Spiridonova NN, Strokan VI. On the Seasonal fluctuations in sudden death from circulatory diseases among the population of the city of Kemerovo. Aktualnyye voprosy sudebnoi meditsiny I ekspertnoy etiki, Barnaul-Novosibirsk 2008; Is.14. URL: <http://journal.forens-lit.ru/node/34>. (In Russ.)

- [4] Demoskop Weekly № 589-59010-23.03.2014. Russian demographic barometer URL: <http://www.demoscope.ru/weekly/2014/0589/barom03.php>. (In Russ.) Демоскоп Weekly № 589-59010-23 марта 2014.
- [5] Climate change and health. WHO fact sheet number 266. November 2013. Available at: <http://www.who.int/mediacentre/factsheets/fs266/ru/index.html>. Accessed 22.12.2013. (In Russ.)
- [6] Revich B. Changing the health of the Russian population in a changing climate. Problems of Forecasting 2010; 3: 140-50. (In Russ.) здоровья населения России в условиях меняющегося климата. Проблемы Прогнозирования 2010; 3: 140-50.
- [7] Boytsov SA, Lukjanov MM, Kontsevaya AV, et al. Peculiarities of seasonal mortality from cardiovascular diseases in winter time in Russian regions with different climatic and geographical characteristics. Rational Pharmacotherapy in Cardiology 2013; 9 (6): 627-32. (In Russ.)
- [8] Antipova SI, Antipov VV, Grishenkova LN, et al. Rhythmological peculiarities of annual mortality of the population of the Republic of Belarus. The problems of public health and health care reform 2013, 4: 38-42. (In Russ.)
- [9] Tanner LM, Moffatt S, Milne EMG, et al. Socioeconomic and behavioral risk factors for adverse winter health and social outcomes in economically developed countries: a systematic review of quantitative observational studies. J Epidemiol Community Health 2013; 67: 1061-7. DOI: 10.1136/jech-2013-202693.
- [10] Burkart K, Khan NH, Kramer A, et al. Seasonal variation of all-cases and cause-specific mortality by age, gender, and socioeconomic condition in urban and rural areas of Bangladesh. International Journal for Equity in Health 2011; 10: 32. DOI: 10.1186/1475-9276-10-32.